AN ESSAY ON

Phthisis Pulmonalis

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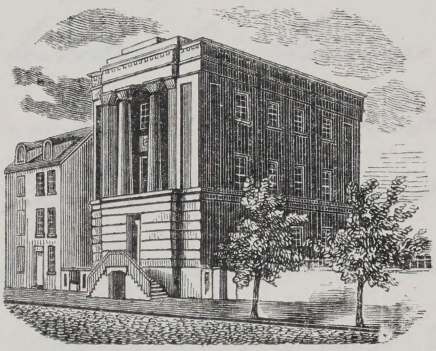

HOMŒOPATHIC MEDICAL COLLEGE

OF PENNSYLVANIA,

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Phthisis Pulmonalis.

The term phthisis is used to denote that form of tuberculous disease in which the lungs are principally affected. In these organs it is first developed, and here are manifested the most interesting and important of its symptoms. It prevails throughout our land, but to a much greater extent in the northern than in the southern latitudes. It is estimated that about one sixth of the deaths occurring north of the tropics is caused by this dreaded disease. Those who are constitutionally predisposed to it are said to possess the tuberculous or scrofulous diathesis; that is a predisposition to deposit a peculiar substance which

from the form it assumes in many tissues is called tubercle. This diathesis is thought to be indicated by certain physical peculiarities, as a clear rosy complexion, soft delicate skin, large blue eyes with long lashes, thick lips especially the upper one, narrow chest and in childhood a sprightly disposition and precocious intellect. The nature of this peculiar deposit which is conveyed by the blood, and which may occur in any part of the system where the blood circulates, and the development of which is attended with such fatal results has not yet been decided. When first deposited it is gray semitransparent and hard, soon becoming yellow opaque and soft. It is thought to be sometimes deposited in the latter form, which is its crude state. These deposits may

take place in small isolated bodies or in irregular infiltrated masses. The small isolated bodies are called miliary tubercles and vary in size from a millet seed to a pea, and are sometimes even larger. Tubercles when deposited may advance to their crude state and remain quiescent until some accidental or unknown circumstance rouse them into action. When tubercular matter is deposited in the gray semitransparent form, a yellow spot soon makes its appearance near the centre of the deposit which continues to extend until the whole becomes yellow opaque and soft. When the tubercular deposits have maturated inflammation and ulceration set in, a passage is established between the tubercle and bronchia, one or

more of which communicate with a tuber-
-cle, the contents of the tubercle are dis-
-charged, leaving a cavity technically called
a vomica. These vomicae are lined by
a false membrane which secretes a pus
like substance which continues to be
discharged for sometime. This mem-
-brane is formed by fibrinous exuda-
-tion and is continuous with the
mucous membrane of the bronchia.
Sometimes these ~~cavities or~~ vomicae
coalesce forming one immense cav-
-ity not unfrequently comprising the
whole upper lobe of a lung. These cavities
are seldom or never found in the low-
-er portion of the lungs; the isolated
tubercles however are found scattered
in all parts of the organ. Of the two
the left lung seems to be the most vulner-

-ious to tuberculer deposits. The origin of tuber-
-cles has been and is still a subject of great
interest. Some pathologists maintain that
they are a product of inflammation; but the
argument urged against inflammation
as the producing cause of tubercles is that
those parts of the lungs the most prone
to inflammatory attacks are seldom
the seat of, and have the fewest tuber-
-cles, and that those portions of the lungs
in which deposits are most frequently
found are rarely affected by inflam-
-mation. Inflammation sometimes
precedes and is often the result of the
development of tubercles, but that they
are the result of an inflammatory pro-
-cess is now generally disbelieved by the
profession. Another interesting subject and
one of much controversy, is the mode by

which softening is produced in tubercles.
Some contend that an inflammatory con-
-dition is excited by infiltrated purulent
or serous fluid secreted by the inves-
-ting tissue of the tubercle; but others
equally eminent as authority among
whom may be mentioned Laennec
and Louis are opposed to this opinion.
We are led to suppose from certain obser-
vable facts that this change in tuber
-cular deposits is owing to the peculiar
nature of the substance. Sometimes
the development of tubercles is arrested
and nature establishes a process by
which the animal portion of the tuber-
-cle is absorbed, the earthy portion
remaining in the form of a chalky
concretion which is comparatively
harmless. Another process by which tuber-

-ers are sometimes healed consists in the contraction of the walls of a cavity after its contents have been evacuated a cicatrix remaining denoting where once had been a tubercle. So insidious is this formidable disease in its attack that the citadel is stormed before the unwary victim is alarmed. It generally commences with a dry hacking cough so slight at first as to cause no uneasiness, but gradually increasing in severity, and soon attended with a mucus expectoration, which at first is transparent, but soon becoming yellowish and opaque. The cough which is one of the most prominent symptoms, is supposed to be owing in the early stage to bronchial irritation produced by the tubercles acting as foreign bodies in the lungs. As the disease progresses the cough becomes

very troublesome preventing the unfortunate
patient from obtaining any refreshing rest.
This increase of the cough is attributed to
the tubercles having arrived at that peri-
-od when their contents seek to be dis-
-charged, and also to the bronchial inflam-
-mation caused by the irritating matters
coming in contact with the bronchial
membrane. At this stage the character of the
expectoration is materially altered, the
Sputa having a distinct globular form
of a greenish yellow colour, thick semifluid
consistency, and is often streaked with
yellow indicating liquified tuberculous mat-
-ter. When these distinct globular Sputa
are discharged into water they flatten
but retain their distinct forms and
float or sink as they are more or less
mixed with mucus. The distinct Sputa

are seldom observed in any other disease of the chest, and sometimes they are wanting in phthisis, the expectoration being more like that noticed in the purulent stage of chronic bronchitis, which is more apt to be the case if there are large vomicae in the lungs. The quantity expectorated varies in different cases, in some being quite copious and in others scarcely noticeable. Sometimes the discharge of pus suddenly ceases, which is attributed to the cavity having taken on a healthy action; but other tubercles soon maturate and the discharge is again renewed. In the advanced period of the disease, the pus frequently presents a rusty or brownish appearance, and the cough becomes deep and hollow, which is one of the fatal signs. The cough and expec-

-toration not unfrequently cease a few days previous to dissolution. Dyspnoea is a symptom most usually present in the later stages of phthisis pulmonalis which however is seldom troublesome unless there be complication with some other disease of the chest, when it may cause extreme suffering. Cases are mentioned where the patients were obliged to maintain the sitting posture for days and even weeks before death. That dyspnoea is not more frequently a prominent symptom is attributable to the fact, that the amount of blood becomes proportioned to the diminished capacity of the lungs. Hemorrhage may occur at any period of the disease, but is usually more frequent in the first then at any subsequent stage. Copious hemoptysis occurs at an advanced period

of the disease it is most probably owing to some large vessel having been thus opened by ulceration. The symptom causing the patient more discomfort than any other, is the night sweats which are often so profuse that the sheets in which the patient has slept may be wrung. The exhaustion from these sweats is extreme, causing the poor patient to dread the thought of sleep. Watson mentions a case of a poor fellow who was so troubled by nocturnal perspiration that he slept for several successive nights in a sitting posture in hope of obtaining relief, and on those nights he had no perspiration. These sweats are thought to be owing to a debilitated condition of the capillaries which allows the watery portion of the blood to escape readily and that they occur during sleep because the

vital forces are then the most depressed.
Next to the cough a frequent pulse is found
to be the most constant symptom in phthisis. Slight
exercise causes great acceleration, and fre-
quently it will rise as high as one hun-
dred and twenty or thirty in a minute.
Sometimes it is not increased beyond its
normal standard during the whole
course of the disease. Emaciation and
debility are prominent symptoms, the
appetite may be good but day by day
there is a wasting away indicating but too
plainly that there is a cause undermin-
ing the system which the vital powers
cannot resist. The debility is not usually
proportionate to the loss of flesh, the patient
not unfrequently retaining sufficient streng-
th to walk about even to the day of death.
Gastric symptoms are frequent. There is

often pain in the epigastrium which is most generally attended with nausea and vomiting. The vomitings are usually mucus in their character; rarely bilious. Diarrhoea is another common symptom, and one exceedingly harassing to the patient. It generally appears after the disease is somewhat advanced. It was formerly believed that the diarrhoea and perspiration bore an inverse ratio to each other; but according to Louis and others it seems to have been an erroneous opinion. It has been observed that when chronic gastritis and diarrhoea are present in the early stages of the disease that its course is much more rapid. In phthisis the male sexual organs are but little affected; in the female however, these organs are commonly affected. Suppression of the menses is of frequent occurrence, and is thought

to materially increase the danger. Many suppose that pregnancy and lactation exert a favorable influence over the disease. Symptoms that were alarming have been known to disappear frequently during gestation, and young married women are known to have been free from symptoms indicating the disease for many years of child bearing and nursing who previously had all the signs of confirmed Phthisis. In the commencement of the disease the physical signs are somewhat doubtful. If percussion be made upon or under the clavicle a slight dullness may be perceived, and it is quite a significant sign if a greater dullness is perceived upon one side than upon the other, particularly if it is greater upon the left side. The first auscultatory sign noticed

is feebleness of the respiratory murmur just below the clavicle. As consolidation of the lung or lungs becomes more complete the vesicular breathing gives place to bronchial respiration and bronchophony; the expiratory sound is prolonged which is considered as a very characteristic sign of this stage of tuberculous deposition, and sometimes the inspiration is very irregular, being wavy or jerking. As the disease progresses the physical signs become more prominent, the mucus and subcrepitant rale, and sometimes the sonorous and sibilant rales are heard in the same situation, percussion becomes more dull and the vibrations caused by the cough and voice become perceptible to the hand. When a vomica is forming in the lung its progress can be followed with considerable accuracy.

When a vomica has opened into the bronchi percussion is still dull, the vibratory motion produced by coughing and speaking continues, but in addition to those other symptoms now present themselves. The entrance and exit of air produces a sound said to be well expressed by the word gurgling. Laennec calls it gargouillement. This sound is caused by the passage of air through a liquid. When the cavities become empty a different sound is heard denominated cavernous respiration; if the cavity be large it is a hollow sound. But the creaking sound produced in the little cavities also comes under the head of cavernous respiration. When the walls of the large cavities become firm the voice and respira-

tion assume what is called an amphoric resonance, a sound which can be easily imitated by blowing into a decanter with the mouth a short distance from the neck. The sound called metallic tinkling is also heard. These signs are said to be unfailing indications of cavities. The duration of the disease varies; it may be very rapid in its course, terminating in a few months or even two or three weeks. When thus rapid it is called acute phthisis; in common parlance quick or galloping consumption. More often it lingers along for one or more years. The causes are predisposing and exciting. Among the former an inherited predisposition is considered the most influential. The

exciting causes are anything that irritates or inflames the lungs. Febrile action is an efficient exciting cause; also continued morbid evacuations, the healing of old ulcers, resolution of external scrofulous tumours, cessation of the menses and childbearing. About the treatment little need be said. Is consumption curable? is a question which has been asked times innumerable. That persons suffering with the disease do occasionally recover is known to be true; but that treatment has anything to do with these recoveries no one can positively assert. Undoubt by proper hygenic measures and safe remedies the life of the patient may be prolonged perhaps for years.